

**REMARKS/ARGUMENTS**

Claim 1 has been amended. Claims 1-10 and 12-17 remain in the application. No new matter has been added. Reconsideration of this application is respectfully requested.

**Claim Rejection - 35 U.S.C. § 112:**

*Claims 1 was rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirements.*

Applicants respectfully traverse the rejection.

Applicants specifically recite in claim 1:

“(a) separating the plurality of radios into two or more groups, wherein each group of radios are arranged to communicate over different communication channels;”

FIG. 1 and page 3, lines 20-23 of the specification shows and describes a group of radios (radio 1, radio 2) communicating over channel IB1, a group of radios (radio 3, radio 4) communicating over channel IB2 and a group of radios (radio 6, radio 7) communicating over channel IB3. This figure and description thus clearly support a plurality of radios being separated into two or more groups, wherein each group of radios are arranged to communicate over different communication channels.

Applicants specifically recite in claim 1:

“(e) if a determination is made that the two or more groups should be reconfigured to allow a reduction in collisions on a communication channel, reconfiguring the grouping of radios based on the communication connection statistics gathered in step (b), wherein the communications connection statistics are used to determine the reconfigured radio

groupings and wherein each of the reconfigured radio groupings are arranged to share different respective communication channels.”

FIG. 6 of Applicants’ application shows an example of separating the radios of FIG. 1 into different user groupings based on a communication connection statistic. In the first column, user grouping UGI 602 groups radios 1, 2, 3 communicating (over say IB1), UGII 604 groups radios 4, 5, 6 communicating (over say IB2) and UGIII 606 groups radios 7,8,9 communicating (over say IB3).

602	1,2,3	2,3,7	1,2,3	3,4,6	2,6,7
604	4,5,6	4,5,6	4,5,7	1,2,5	1,4,5
606	7,8,9	1,8,9	6,8,9	7,8,9	3,8,9

**FIG. 6**

If we look at the second column of FIG. 6, we see that based on a communication connection statistic, UG1 602 reconfigures to radios 2, 3, 7; UG2 604 reconfigures to radios 4, 5, 6 and UGIII 606 reconfigures to radios 1, 8, 9. Thus, UG1 602 shares a channel different from that of UGII and UGIII. And, UGII shares a channel different from that of UG1 and UGIII. And, UGIII shares a channel different from that of UG1 and UGII. Thus, applicants assert that there is support for “the communications connection statistics are used to determine the reconfigured radio groupings and wherein each of the reconfigured radio groupings are arranged to share different respective communication channels.”

Additional support is found on by page 2, lines 17-22 where the specification recites:

*“The results of these tabulations are used to group radio users into subgroups according to the desired communication statistic. The radios within a subgroup then share a communication channel, separated by time or frequency from the communication **channels** allocated to other subgroups, to access the communication system in an organized fashion such that channel-access collisions are minimized.”*

Applicants maintain that the entire passage read as a whole reasonably conveys further support for the claimed language “...the reconfigured radio groupings are arranged to share different respective communication channels.”

Accordingly, the rejection of claim 1 under 35USC112, first paragraph is overcome.

**Claim Rejection - 35 U.S.C. § 103:**

*Claims 1, 2, 6, 7, 8, 9, 10, 13, 14 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ishikawa et al (US 5,666,655) in view of Ueda (US 5,606,727).*

*Claims 8 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Ishikawa et al (US 5,666,655) in view of Ueda (US 5,606,727) and further in view of Muller (US 6,438,375).*

*Claims 3-5, 12 and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ishikawa et al (US 5,666,655) in view of Ueda (US 5,606,727) and further in view of Official Notice.*

*Claims 15 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Ishikawa et al (US 5,666,655) in view of Ueda (US 5,606,727) and further in view of Raith (US 6,385,461).*

Applicants respectfully traverse the rejection. None of the cited references taken individually or in combination teach or suggest that which is claimed by Applicants' invention.

Applicant have amended claim 1 to change the word "if" to "when" in the last step. Applicants appreciate and thank the Examiner for providing a response to the claim limitation that utilized the word "if".

Applicants maintain that Ishikawa's "distance" should not be equated to Applicants' claimed "communication connection statistic" based on arguments previously presented. However, Applicants will focus the arguments of the current response on the newly cited Ueda reference (Pat. No. 5,606,727).

The Examiner concedes, on page 4 of the Office Action dated February 15, 2007, that Ishikawa does not specifically disclose determining whether the two or more groups should be reconfigured to allow a reduction in collisions on a communication channel, reconfiguring the grouping of radios based on the communication connection statistics gathered in step (b), wherein the communications connection statistics are used to determine the reconfigured radio groupings and wherein each of the reconfigured radio groupings are arranged to share different respective communication channels.

The Examiner further concedes on page 5 of the Office Action that Ishikawa does not specifically disclose if a determination is made that the two or more groups should be reconfigured to allow a reduction in collisions on a communication channel.

The Examiner states that the Ueda reference teaches if a determination is made that the two or more groups should be reconfigured to allow a reduction in collisions on a communication channel (citing col. 7, lines 33-47, "groups of mobile stations" and "colliding"). The Examiner states that it would have been obvious to one of ordinary skill in the art to provide the teaching of Ueda into the system of Ishikawa so that channel[s] are prevented from colliding with each other – (citing column 7, lines 33-47 of Ueda). Applicants have thoroughly reviewed the Ueda reference and assert that Ueda actually teaches away from Applicants invention in that Ueda's process will result in the removal of radios from the system as will be argued below.

The Ueda reference teaches that cell phones can change their DOWNLINK (mobile-to-base) channel assignment when channel interference is detected such that the quality of a call is optimal. All cell systems can do this but the most popular method is prone to collisions and poor signal quality. Most systems have to establish the call, sense the UPLINK (base-to-mobile) transmission, and THEN the change the channel to reduce interference. The channel is adjusted AFTER the call is made which often causes collisions.

In col. 7, lines 33-47, Ueda teaches a channel reassignment process that creates fewer collisions during channel reassignment time – but Applicants assert that Ueda's process results in REMOVING radios from groups. Basically, Ueda measures the UPLINK channel quality and reassigns the channel BEFORE a call is made. Ueda's process comprises the following steps: a) removing all channel PREassignments from a mobile station b) recognizing that collisions exist on the BASE-TO\_MOBILE (downlink) transmissions, c) ranking the radios based on the "interference signal levels" on the downlink, and FINALLY d) assigning a channel to a radio before a call is made. Because there are fewer radios "reassigned" to channels, there will be fewer collisions, hence the call quality will increase – but, as Applicants assert, at the price of removing radios. As stated in col. 7 lines 35-37 ... "consequently, by assigning fewer shared channels to mobile stations ..." The assignment of fewer shared channels requires that Ueda

REMOVE radios from groups in order to decrease collisions. Thus, the Ueda reference, even if it could be combined with the Ishikawa reference, would result in radios being removed.

Applicants system, on the other hand, does not REMOVE radios from groups in order to decrease collisions. Instead, Applicants' invention monitors the "communication connection statistic" to "reconfigure radio groupings" for "a reduction in collisions", as claimed in independent claim 1. Applicants' reconfiguration does not remove radios as seen, for example, in FIG. 6 and throughout the specification. Accordingly, the rejection of independent claim 1 is overcome.

Claims 2, 6, 7, 8, 9, 10, 13, 14 and 16 provide further limitations to what is believed to be allowable claim 1 and hence are also in condition for allowance. Claims 3-5, 8, 12, 15, and 17 depend either directly or indirectly on claim 1 and hence are also in condition for allowance. None of the cited references taken individually or in combination teach that which is claimed by Applicants' invention.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein. No amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

The Applicants believe that the subject application, as amended, is in condition for allowance. Such action is earnestly solicited by the Applicants.

In the event that the Examiner deems the present application non-allowable, it is requested that the Examiner telephone the Applicant's attorney or agent at the number indicated below so that the prosecution of the present case may be advanced by the clarification of any continuing rejection.

The Commissioner is hereby authorized to charge Deposit Account 502117, Motorola, Inc, with any fees which may be required in the prosecution of this application.

Respectfully submitted,

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